

**Notice of Allowability**

Application No.

10/731,688

Examiner

ALEXANDER BOAKYE

Applicant(s)

WANG ET AL.

Art Unit

2616

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/27/2006.
2. ☒ The allowed claim(s) is/are 1-24, 26, 25; renumbered as 1-26 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (-PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

1. The drawings filed 12/09/2003 has been approved by the examiner.

### **REASONS FOR ALLOWANCE**

2. The following is an examiner's statement of reasons for allowance: Claims 1-26 are considered allowable since when reading the claims in light of the specification, none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims. As to claim 1, the prior art of record does not teach adding a plurality of prefixes to a plurality of data streams in symbol-level carrying a plurality of transmit symbols for providing a plurality of further data streams indicative of the prefix-added streams; and combining the spread data streams into at least one code division multiple access chip-level code stream for transmission. As to claims 2-5, the prior art of record does not teach streams is divided into a plurality of data blocks so as to allow the prefixes to be added to the data blocks for providing a plurality of prefix-added data blocks.

As to claims 6-16, the prior art of record does not teach wherein the transmitted chip-level code stream is received for providing a receiving signal indicative of the received chip-level code stream, and method further comprising: removing the prefixes from the received signal for providing a further signal in time domain indicative of a prefix-removed data stream and converting the further signal into a transformed signal

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in frequency domain. As to claims 17-19, the prior art of record does not teach a plurality of first modules, for adding a plurality of prefixes to a plurality of data streams in symbol-level carrying a plurality of transmit symbols for providing a plurality of further data streams indicative of the prefix-added data streams; and summing module for summing the spread data streams into at least one code division multiple access chip-level code stream for transmission.

As to claims 20-22, the prior art of record does not teach a third module for applying a plurality of feed-forward filter coefficients to the transformed signal for channel equalization in frequency domain and providing equalized signal for despreading. As to claims 23, 24 and 26, the prior art of record does not teach a summing module for summing the spread data streams into at least one code division multiple access chip-level code stream for transmission; and a third module for removing the prefixes from the code division multiple access chip-level code stream for providing a prefix-removed code stream in the time domain. As to claim 25, the prior art of record does not teach a seventh module, for applying a plurality of feed-forward filter coefficients to the transformed signal for channel equalization in frequency domain and providing equalized signal for despreading; an eight module, for converting the equalized signal into a further transformed signal in time domain; and a ninth module for removing inter-symbol interference in the further transformed signal in time domain. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany

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the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Conclusion

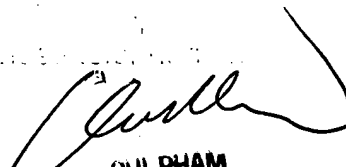
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (571) 272-3183. The examiner can normally be reached on M-F from 8:30am to 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (571) 272-3179. The fax number is (571) 273-8300. Any inquiry of general nature or relating to the status of this application or proceeding should be directed to Electronic Business Center numbers 866-217-9197 and 703-305-3028.

Alexander Boakye

Patent Examiner

AB

6/7/06

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER  
ELECTRONIC BUSINESS CENTER  
6/9/06